SEQUENCE LISTING

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<120> Beta-Amyloid Peptide-Binding Proteins and Polynucleotides Encoding the Same

<130> 31896-67200 (AHP98126 P2)

<140> 09/852,100
<141> 2001-05-01

<150> US 09/774,936
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<150> PCT/US99/21621
<151> 1999-10-13

<150> US 09/172,990
<151> 1998-10-14

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<150> US 09/060,609
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Gln Lys Asn Thr Arg Arg Asp Gly Thr Gly Leu Tyr Pro Met Arg Gly
            20                  25                  30
ccc ttt aag aac ctc gcc ctg ttg ccc ttc tcc ctc ccg ctc ctg ggc      144
Pro Phe Lys Asn Leu Ala Leu Leu Pro Phe Ser Leu Pro Leu Leu Gly
        35                  40                  45
gga ggc gga agc gga agt ggc gag aaa gtg tcg gtc tcc aag atg gcg      192
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    50                  55                  60
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Ala Ala Trp Pro Ser Gly Pro Ser Ala Pro Glu Ala Val Thr Ala Arg
65                  70                  75                  80
ctc gtt ggt gtc ctg tgg ttc gtc tca gtc act aca gga ccc tgg ggg      288
Leu Val Gly Val Leu Trp Phe Val Ser Val Thr Thr Gly Pro Trp Gly
                85                  90                  95
gct gtt gcc acc tcc gcc ggg ggc gag gag tcg ctt aag tgc gag gac      336
Ala Val Ala Thr Ser Ala Gly Gly Glu Glu Ser Leu Lys Cys Glu Asp
            100                 105                 110
ctc aaa gtg gga caa tat att tgt aaa gat cca aaa ata aat gac gct      384
Leu Lys Val Gly Gln Tyr Ile Cys Lys Asp Pro Lys Ile Asn Asp Ala
        115                 120                 125
acg caa gaa cca gtt aac tgt aca aac tac aca gct cat gtt tcc tgt      432
Thr Gln Glu Pro Val Asn Cys Thr Asn Tyr Thr Ala His Val Ser Cys
    130                 135                 140
ttt cca gca ccc aac ata act tgt aag gat tcc agt ggc aat gaa aca      480
Phe Pro Ala Pro Asn Ile Thr Cys Lys Asp Ser Ser Gly Asn Glu Thr
145                 150                 155                 160
cat ttt act ggg aac gaa gtt ggt ttt ttc aag ccc ata tct tgc cga      528
His Phe Thr Gly Asn Glu Val Gly Phe Phe Lys Pro Ile Ser Cys Arg
                165                 170                 175
aat gta aat ggc tat tcc tac aaa gtg gca gtc gca ttg tct ctt ttt      576
Asn Val Asn Gly Tyr Ser Tyr Lys Val Ala Val Ala Leu Ser Leu Phe
            180                 185                 190
ctt gga tgg ttg gga gca gat cga ttt tac ctt gga tac cct gct ttg      624
Leu Gly Trp Leu Gly Ala Asp Arg Phe Tyr Leu Gly Tyr Pro Ala Leu
        195                 200                 205
ggt ttg tta aag ttt tgc act gta ggg ttt tgt gga att ggg agc cta      672
Gly Leu Leu Lys Phe Cys Thr Val Gly Phe Cys Gly Ile Gly Ser Leu
    210                 215                 220
att gat ttc att ctt att tca atg cag att gtt gga cct tca gat gga      720
Ile Asp Phe Ile Leu Ile Ser Met Gln Ile Val Gly Pro Ser Asp Gly
225                 230                 235                 240
agt agt tac att ata gat tac tat gga acc aga ctt aca aga ctg agt      768
Ser Ser Tyr Ile Ile Asp Tyr Tyr Gly Thr Arg Leu Thr Arg Leu Ser
                245                 250                 255
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            260                 265
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<213> Homo sapiens

<400> 2

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            20                  25                  30
Pro Phe Lys Asn Leu Ala Leu Leu Pro Phe Ser Leu Pro Leu Leu Gly
        35                  40                  45
Gly Gly Gly Ser Gly Ser Gly Glu Lys Val Ser Val Ser Lys Met Ala
    50                  55                  60
Ala Ala Trp Pro Ser Gly Pro Ser Ala Pro Glu Ala Val Thr Ala Arg
65                  70                  75                  80
Leu Val Gly Val Leu Trp Phe Val Ser Val Thr Thr Gly Pro Trp Gly
                85                  90                  95
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Ala Val Ala Thr Ser Ala Gly Gly Glu Glu Ser Leu Lys Cys Glu Asp
            100                 105                 110
Leu Lys Val Gly Gln Tyr Ile Cys Lys Asp Pro Lys Ile Asn Asp Ala
        115                 120                 125
Thr Gln Glu Pro Val Asn Cys Thr Asn Tyr Thr Ala His Val Ser Cys
    130                 135                 140
Phe Pro Ala Pro Asn Ile Thr Cys Lys Asp Ser Ser Gly Asn Glu Thr
145                 150                 155                 160
His Phe Thr Gly Asn Glu Val Gly Phe Phe Lys Pro Ile Ser Cys Arg
                165                 170                 175
Asn Val Asn Gly Tyr Ser Tyr Lys Val Ala Val Ala Leu Ser Leu Phe
            180                 185                 190
Leu Gly Trp Leu Gly Ala Asp Arg Phe Tyr Leu Gly Tyr Pro Ala Leu
        195                 200                 205
Gly Leu Leu Lys Phe Cys Thr Val Gly Phe Cys Gly Ile Gly Ser Leu
    210                 215                 220
Ile Asp Phe Ile Leu Ile Ser Met Gln Ile Val Gly Pro Ser Asp Gly
225                 230                 235                 240
Ser Ser Tyr Ile Ile Asp Tyr Tyr Gly Thr Arg Leu Thr Arg Leu Ser
                245                 250                 255
Ile Thr Asn Glu Thr Phe Arg Lys Thr Gln Leu Tyr Pro
            260                 265
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<213> Mus musculus

<400> 3

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            20                  25                  30
Cys Gly Ala Ala Ala Ser Gly Ala Val Gly Gly Glu Glu Thr Pro Lys
        35                  40                  45
Cys Glu Asp Leu Arg Val Gly Gln Tyr Ile Cys Lys Glu Pro Lys Ile
    50                  55                  60
Asn Asp Ala Thr Gln Glu Pro Val Asn Cys Thr Asn Tyr Thr Ala His
65                  70                  75                  80
Val Gln Cys Phe Pro Ala Pro Lys Ile Thr Cys Lys Asp Leu Ser Gly
                85                  90                  95
Asn Glu Thr His Phe Thr Gly Ser Glu Val Gly Phe Leu Lys Pro Ile
            100                 105                 110
Ser Cys Arg Asn Val Asn Gly Tyr Ser Tyr Lys Val Ala Val Ala Leu
        115                 120                 125
Ser Leu Phe Leu Gly Trp Leu Gly Ala Asp Arg Phe Tyr Leu Gly Tyr
    130                 135                 140
Pro Ala Leu Gly Leu Leu Lys Phe Cys Thr Val Gly Phe Cys Gly Ile
145                 150                 155                 160
Gly Ser Leu Ile Asp Phe Ile Leu Ile Ser Met Gln Ile Val Gly Pro
                165                 170                 175
Ser Asp Gly Ser Ser Tyr Ile Ile Asp Tyr Tyr Gly Thr Arg Leu Thr
            180                 185                 190
Arg Leu Ser Ile Thr Asn Glu Thr Phe Arg Lys Thr Gln Leu Tyr Pro
        195                 200                 205
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<210> 4
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<212> PRT
<213> Drosophila melanogaster

<400> 4

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20 25 30
Met Cys Pro Asp Pro Ala Arg Gly Gln Ile Asp Pro Lys Thr Gln Gln
35 40 45
Leu Ala Gly Cys Thr Arg Glu Gly Arg Ala Arg Val Trp Cys Ile Ala
50 55 60
Ala Asn Glu Ile Asn Cys Thr Glu Thr Gly Asn Ala Thr Phe Thr Arg
65 70 75 80
Glu Val Pro Cys Lys Trp Thr Asn Gly Tyr His Leu Asp Thr Thr Leu
85 90 95
Leu Leu Ser Val Phe Leu Gly Met Phe Gly Val Asp Arg Phe Tyr Leu
100 105 110
Gly Tyr Pro Gly Ile Gly Leu Leu Lys Phe Cys Thr Leu Gly Gly Met
115 120 125
Phe Leu Gly Gln Leu Ile Asp Ile Val Leu Ile Ala Leu Gln Val Val
130 135 140
Gly Pro Ala Asp Gly Ser Ala Tyr Val Ile Pro Tyr Tyr Gly Ala Gly
145 150 155 160
Ile His Ile Val Arg Ser Asp Asn Thr Thr Tyr Arg Leu Pro Arg Asp
165 170 175
Asp Trp

<210> 5
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<212> PRT
<213> Homo sapiens

<400> 5

Met Val Leu Gly Gly Cys Pro Val Ser Tyr Leu Leu Leu Cys Gly Gln
1 5 10 15
Ala Ala Leu Leu Leu Gly Asn Leu Leu Leu Leu His Cys Val Ser Arg
20 25 30
Ser His Ser Gln Asn Ala Thr Ala Glu Pro Glu Leu Thr Ser Ala Gly
35 40 45
Ala Ala Gln Pro Glu Gly Pro Gly Gly Ala Ala Ser Trp Glu Tyr Gly
50 55 60
Asp Pro His Ser Pro Val Ile Leu Cys Ser Tyr Leu Pro Asp Glu Phe
65 70 75 80
Ile Glu Cys Glu Asp Pro Val Asp His Val Gly Asn Ala Thr Ala Ser
85 90 95
Gln Glu Leu Gly Tyr Gly Cys Leu Lys Phe Gly Gly Gln Ala Tyr Ser
100 105 110
Asp Val Glu His Thr Ser Val Gln Cys His Ala Leu Asp Gly Ile Glu
115 120 125
Cys Ala Ser Pro Arg Thr Phe Leu Arg Glu Asn Lys Pro Cys Ile Lys
130 135 140
Tyr Thr Gly His Tyr Phe Ile Thr Thr Leu Leu Tyr Ser Phe Phe Leu
145 150 155 160
Gly Cys Phe Gly Val Asp Arg Phe Cys Leu Gly His Thr Gly Thr Ala
165 170 175

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Val Gly Lys Leu Leu Thr Leu Gly Gly Leu Gly Ile Trp Trp Phe Val
            180                 185                 190
Asp Leu Ile Leu Leu Ile Thr Gly Gly Leu Met Pro Ser Asp Gly Ser
        195                 200                 205
Asn Trp Cys Thr Val Tyr
    210
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<210> 6
<211> 213
<212> PRT
<213> Mus musculus

<400> 6

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Met Val Leu Gly Gly Cys Pro Val Ser Tyr Leu Leu Leu Cys Gly Gln
1               5                   10                  15
Ala Ala Leu Leu Leu Gly Asn Leu Leu Leu Leu His Cys Val Ser Arg
            20                  25                  30
Ser His Ser Gln Asn Ala Thr Ala Glu Pro Glu Leu Thr Pro Ser Gly
        35                  40                  45
Ala Ala His Leu Glu Gly Pro Ala Ala Ser Ser Trp Glu Tyr Ser Asp
    50                  55                  60
Pro Asn Ser Pro Val Ile Leu Cys Ser Tyr Leu Pro Asp Glu Phe Val
65                  70                  75                  80
Asp Cys Asp Ala Pro Val Asp His Val Gly Asn Ala Thr Ala Ser Gln
                85                  90                  95
Glu Leu Gly Tyr Gly Cys Leu Lys Phe Gly Gly Gln Ala Tyr Ser Asp
            100                 105                 110
Val Gln His Thr Ala Val Gln Cys Arg Ala Leu Glu Gly Ile Glu Cys
        115                 120                 125
Ala Ser Pro Arg Thr Phe Leu Arg Glu Asn Lys Pro Cys Ile Lys Tyr
    130                 135                 140
Thr Gly His Tyr Phe Ile Thr Thr Leu Leu Tyr Ser Phe Phe Leu Gly
145                 150                 155                 160
Cys Phe Gly Val Asp Arg Phe Cys Leu Gly His Thr Gly Thr Ala Val
                165                 170                 175
Gly Lys Leu Leu Thr Leu Gly Gly Leu Gly Ile Trp Trp Phe Val Asp
            180                 185                 190
Leu Ile Leu Leu Ile Thr Gly Gly Leu Met Pro Ser Asp Gly Ser Asn
        195                 200                 205
Trp Cys Thr Val Tyr
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<210> 7
<211> 224
<212> PRT
<213> Drosophila melanogaster

<400> 7

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Met Arg Ile Phe Tyr Gly Leu Leu Ala Phe Leu Val Ala Arg Gln His
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Asp Ala Gln Ala Ile Gln Ala Arg Ser Asp Lys Glu Gln Pro Gln Thr
            20                  25                  30
Val Val Ser Gly Thr Ala Val Gln Ser Val Val Pro Val Gln Ala Gln
        35                  40                  45
Leu Gly Ser Gly Met Gly Pro Ser Ser Ser Ser Ser Ser Ala Ser Ser
    50                  55                  60
Ala Ser Gly Gly Ala Gly Asn Ser Ala Phe Tyr Pro Leu Gly Pro Asn
65                  70                  75                  80
Val Met Cys Ser Phe Leu Pro Arg Asp Phe Leu Asp Cys Lys Asp Pro
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```
                85                  90                  95
Val Asp His Arg Glu Asn Ala Thr Ala Gln Gln Glu Lys Lys Tyr Gly
            100                 105                 110
Cys Leu Lys Phe Gly Gly Ser Thr Tyr Glu Glu Val Glu His Ala Met
        115                 120                 125
Val Trp Cys Thr Val Phe Ala Asp Ile Glu Cys Tyr Gly Asn Arg Thr
    130                 135                 140
Phe Leu Arg Ala Gly Val Pro Cys Val Arg Tyr Thr Asp His Tyr Phe
145                 150                 155                 160
Val Thr Thr Leu Ile Tyr Ser Met Leu Leu Gly Phe Leu Gly Met Asp
                165                 170                 175
Arg Phe Cys Leu Gly Gln Thr Gly Thr Ala Val Gly Lys Leu Leu Thr
            180                 185                 190
Met Gly Gly Val Gly Val Trp Trp Ile Ile Asp Val Ile Leu Leu Ile
        195                 200                 205
Thr Asn Asn Leu Leu Pro Glu Asp Gly Ser Asn Trp Asn Pro Tyr Val
    210                 215                 220
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<210> 8
<211> 221
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<213> Homo sapiens

<400> 8

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1               5                   10                  15
Val Leu Leu Phe Leu Ser Gln Phe Cys Ile Leu Ser Gly Gly Glu Ser
            20                  25                  30
Thr Glu Ile Pro Pro Tyr Val Met Lys Cys Pro Ser Asn Gly Leu Cys
        35                  40                  45
Ser Arg Leu Pro Ala Asp Cys Ile Asp Cys Thr Thr Asn Phe Ser Cys
    50                  55                  60
Thr Tyr Gly Lys Pro Val Thr Phe Asp Cys Ala Val Lys Pro Ser Val
65                  70                  75                  80
Thr Cys Val Asp Gln Asp Phe Lys Ser Gln Lys Asn Phe Ile Ile Asn
                85                  90                  95
Met Thr Cys Arg Phe Cys Trp Gln Leu Pro Glu Thr Asp Tyr Glu Cys
            100                 105                 110
Thr Asn Ser Thr Ser Cys Met Thr Val Ser Cys Pro Arg Gln Arg Tyr
        115                 120                 125
Pro Ala Asn Cys Thr Val Arg Asp His Val His Cys Leu Gly Asn Arg
    130                 135                 140
Thr Phe Pro Lys Met Leu Tyr Cys Asn Trp Thr Gly Gly Tyr Lys Trp
145                 150                 155                 160
Ser Thr Ala Leu Ala Leu Ser Ile Thr Leu Gly Gly Phe Gly Ala Asp
                165                 170                 175
Arg Phe Tyr Leu Gly Gln Trp Arg Glu Gly Leu Gly Lys Leu Phe Ser
            180                 185                 190
Phe Gly Gly Leu Gly Ile Trp Thr Leu Ile Asp Val Leu Leu Ile Gly
        195                 200                 205
Val Gly Tyr Val Gly Pro Ala Asp Gly Ser Leu Tyr Ile
    210                 215                 220
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<210> 9
<211> 229
<212> PRT
<213> Mus musculus

<400> 9

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            20                  25                  30
Gln Leu Phe Ser His Leu Thr Glu Ser Thr Glu Ile Pro Pro Tyr Val
        35                  40                  45
Met Lys Cys Pro Ser Asn Gly Leu Cys Ser Arg Leu Pro Ala Asp Cys
    50                  55                  60
Ile Glu Cys Ala Thr Asn Val Ser Cys Thr Tyr Gly Lys Pro Val Thr
65                  70                  75                  80
Phe Asp Cys Thr Val Lys Pro Ser Val Thr Cys Val Asp Gln Asp Leu
                85                  90                  95
Lys Pro Gln Arg Asn Phe Val Ile Asn Met Thr Cys Arg Phe Cys Trp
            100                 105                 110
Gln Leu Pro Glu Thr Asp Tyr Glu Cys Ser Asn Ser Thr Thr Cys Met
        115                 120                 125
Thr Val Ala Cys Pro Arg Gln Arg Tyr Phe Ala Asn Cys Thr Val Arg
    130                 135                 140
Asp His Ile His Cys Leu Gly Asn Arg Thr Phe Pro Lys Leu Leu Tyr
145                 150                 155                 160
Cys Asn Trp Thr Gly Gly Tyr Lys Trp Ser Thr Ala Leu Ala Leu Ser
                165                 170                 175
Ile Thr Leu Gly Gly Phe Gly Ala Asp Arg Phe Tyr Leu Ala Gln Trp
            180                 185                 190
Arg Glu Gly Leu Gly Lys Leu Phe Ser Phe Gly Gly Leu Gly Ile Trp
        195                 200                 205
Thr Leu Asp Val Leu Leu Ile Gly Val Gly Tyr Val Gly Pro Ala Asp
    210                 215                 220
Gly Ser Leu Tyr Ile
225
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<210> 10
<211> 284
<212> PRT
<213> Drosophila melanogaster

<400> 10

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            20                  25                  30
Ala Ser Gly Gly Asn Gln Met Asp Leu Ser Asp Ser Lys Gly Asp His
        35                  40                  45
Lys Asp Asn Ser Asn Ala Ser Asn Gly Asn Gly Asn Ala Asn Asp Asn
    50                  55                  60
Glu Val Tyr Val Pro Pro Leu Val Ser Ser Met Val Ala Lys Ser Gly
65                  70                  75                  80
Gly Gly Ala Gly Gly Leu Leu Asp Asn Ile Thr Ala Tyr Ser Ser Ser
                85                  90                  95
Ser Ser Ser Ser Ser Ser Ser Asn Gly Asn Asn Asn Met Leu Cys Pro Tyr
            100                 105                 110
Asp Lys Glu Thr Pro Cys Asp Arg Leu Gln Phe Pro Cys Ile Arg Cys
        115                 120                 125
```

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Asn Tyr Asn His Gly Cys Ile Tyr Gly Arg Asp Leu Asn Val Thr Cys
    130                 135                 140
Glu Val Ile Asn Asn Val Gln Cys Leu Gly Glu Arg Ser Phe Gln Arg
145                 150                 155                 160
Gln Met Asn Cys Arg Tyr Cys Tyr Gln Thr Glu Met Trp Gln Gln Ser
                165                 170                 175
Cys Gly Gln Arg Ser Ser Cys Asn Ser Ala Thr Asp Lys Leu Phe Arg
            180                 185                 190
Thr Asn Cys Thr Val His His Asp Val Leu Cys Leu Gly Asn Arg Ser
        195                 200                 205
Phe Thr Arg Asn Leu Arg Cys Asn Trp Thr Gln Gly Tyr Arg Trp Ser
    210                 215                 220
Thr Ala Leu Leu Ile Ser Leu Thr Leu Gly Gly Phe Gly Ala Asp Arg
225                 230                 235                 240
Phe Tyr Leu Gly His Trp Gln Glu Gly Ile Gly Lys Leu Phe Ser Phe
                245                 250                 255
Gly Gly Leu Gly Val Trp Thr Ile Ile Asp Val Leu Leu Ile Ser Met
            260                 265                 270
His Tyr Leu Gly Pro Ala Asp Gly Ser Leu Tyr Ile
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<213> Homo sapiens

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ttcctgggtt caaacaatct tcctgcctca gcctcccatc cagtatggga tattttaaaa 180
gattgttgga ccttcagatg gaagtagtta cattatagat tactatggaa ccagacttac 240
aagactgagt attactaatg aaacatttag aaaaacgcaa ttatatccat aa 292

<210> 12
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<212> PRT
<213> Homo sapiens

<400> 12

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            20                  25                  30
Ile Ile Thr His Cys Ser Leu Glu Phe Leu Gly Ser Asn Asn Leu Pro
        35                  40                  45
Ala Ser Ala Ser His Pro Val Trp Asp Ile Leu Lys Asp Cys Trp Thr
    50                  55                  60
Phe Arg Trp Lys
65
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<210> 13
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<212> DNA
<213> Homo sapiens

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catattttaa aagggtctcc caatgtgatt ccacgggctc acgggcagaa gaacacgcga 180
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aagatggcgg ccgcctggcc gtctggtccg tctgctccgg aggccgtgac ggccagactc 360
gttggtgtcc tgtggttcgt ctcagtcact acaggaccct ggggggctgt tgccacctcc 420
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tgtgagattt atttaatagg acttcctttg aaagctgtat aatagtgttt ctcgggcttc 1140
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<213> Artificial

<220>
<223> 5′ Primer

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<210> 15
<211> 32
<212> DNA
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<220>
<223> 5′ Primer

<400> 15
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<210> 16
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<220>
<223> 5′ Primer

<400> 16
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<210> 17
<211> 21
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<220>
<223> 5′ Primer

<400> 17
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<210> 18
<211> 21
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<220>
<223> 5' Primer

<400> 18
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<210> 19
<211> 21
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<400> 19
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<210> 20
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<400> 20
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<210> 21
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<212> DNA
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<210> 22
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<400> 22
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<210> 26
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<400> 26
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<400> 27
gtggatccag tgcttcaatg at 22

<210> 28
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<212> DNA
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<220>
<223> Antisense 5' Primer

<400> 28
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<210> 29
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<210> 30
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<400> 30
gtcgacggtc ttcttgcccc catcttcc 28

<210> 31
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<220>
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<210> 32
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<220>
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<210> 33
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<220>
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<400> 33
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<210> 34
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<220>
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<400> 34
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<210> 35
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Pro Xaa Asp Gly Ser
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